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(54) Positive displacement pump and thrust bearing assembly

(57) A positive displacement pump (12) includes a rotor (50) having a front face (62) and a rear face (54) positioned in the fluid chamber (22). Each of the faces of the rotor is spaced apart from a corresponding inner wall (28,26) of the fluid chamber (22) to define predetermined clearances therebetween. A shaft (44) is connected at a first end to the rotor to effect rotation thereof and extends through a bore (40) in the housing. A thrust bearing assembly (100) includes an adjusting collar (102) and a thrust bushing (110). The adjusting collar (102) is attachable to the shaft and includes a central bore through which the shaft extends. The thrust bush-

ing (110) is secured within the bore of the housing by a locking ring that prevents longitudinal movement of the thrust bushing toward the fluid chamber. The adjusting collar (102) is rotatable with the shaft and is in relative rotatable engagement with the thrust bushing. The adjusting collar and the thrust bushing prevent movement of the shaft and the rotor in a direction away from the adjusting sleeve and toward the rear inner wall of the fluid chamber (22) such that the predetermined clearances between the faces (54, 62) of the rotor and the internal walls (26,28) of the housing are substantially uniformly maintained as the rotor rotates.

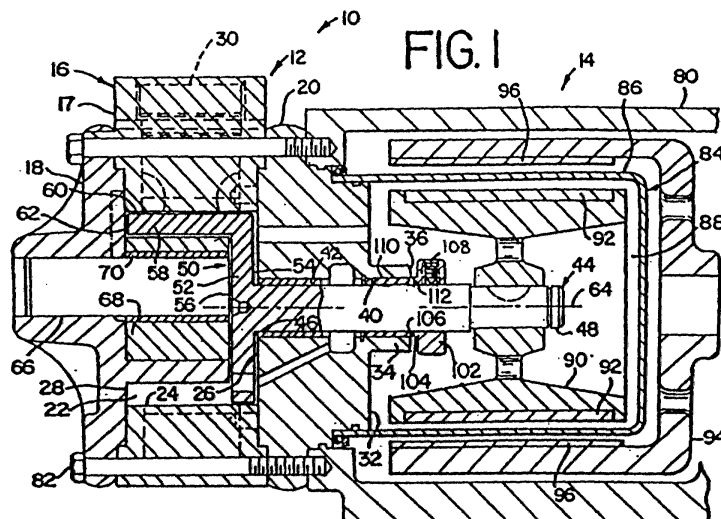


FIG. 1



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EUROPEAN SEARCH REPORT

Application Number
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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			F01C F04C
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 8 March 2002	Examiner Kapoulas, T
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
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**ANNEX TO THE EUROPEAN SEARCH REPORT
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EP 00 30 6659

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The members are as contained in the European Patent Office EDP file on
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08-03-2002

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82